

TECHNICAL PROPOSAL NARRATIVE

Use of a Core Indexing, Search and Retrieval Engine to Increase JUSTIS System Performance and Minimize Resources to Develop and Deliver Expanded User Functionality.

A. The Problem

Information Technology Advisory Committee (ITAC) of the Criminal Justice Coordinating Council (CJCC) and the Deputy Mayor for Public Safety and Justice (DMPSJ) has determined that JUSTIS, the District of Columbia's integrated justice information system, has outstripped its ability to maintain an acceptable level of service. This virtual private network allows authorized users to access 17 sets of data from all 13 major justice agencies in the District of Columbia by use of standard Internet browsers and office quality workstations. These data include information from agency legacy systems and data warehouses, images such as mug shots, and documents. No data is collected or stored by JUSTIS. The majority of agency data is made available on agency servers, and is drawn for that, for interagency access by each contributing justice agency. There are two agencies that utilize JUSTIS as a portal to their systems, and the data available is not placed on an agency's JUSTIS server.

The DC justice agencies currently contributing data to JUSTIS include:

- Superior Court of the District of Columbia

- Office of Corporation Counsel
- Metropolitan Police Department
- Pretrial Services Agency
- Court Services and Offender Supervision Agency
- District of Columbia Department of Corrections
- Office of the United States Attorney for the District of Columbia
- Public Defender Service
- United States Parole Commission
- Department of Human Services' Youth Services Administration
- DC Department of Motor Vehicles
- Child and Family Services Agency
- DCSC Juvenile Court
- United States Probation Department

As well as “contributing” agencies, that is, those agencies that share data via JUSTIS with other justice agencies, JUSTIS is open to, and has invited, a number of other agencies to access data. The first of these agencies to participate is the U.S. State Department.

An additional incentive to solve the JUSTIS level of service problems with advanced technology is the fact the Homeland Security CIO, in discussions with the city, has identified JUSTIS as the highest priority and the project that has garnered his greatest interest. JUSTIS management will soon meet with

Homeland Security administrators to discuss the methodology for Homeland Security units and allied justice agencies to “join” JUSTIS.

The District of Columbia believes this NIJ grant program applies to the JUSTIS problems and approaches found in this application for several reasons:

- This project will guarantee interoperability and data sharing between justice agencies, facilitated by quick response, individualized queries, notifications and warrant information
- This project will demonstrate a better use of a tool commonly used for other purposes, but in this instance used to better protect people and property
- Most importantly, this project will demonstrate a tool that will facilitate access to electronic methods by which data can be shared for all justice purposes, and will be particularly valuable for investigative activities.

Because JUSTIS can already be accessed city wide by any user connected to the District of Columbia Wide Area Network (DC WAN), and regionally (if not nationally) by secure Internet access, the costs of JUSTIS are already very low when compared to any agency’s attempt to provide this same infrastructure.

JUSTIS was developed as a data sharing utility. The ITAC provides stewardship over JUSTIS in the context of a utility. One of the key benefits of JUSTIS is an entire system is that it provides a robust infrastructure to facilitate the addition of users, the expansion of data contribution by existing agencies and the addition of

new data contributing agencies. In this context, JUSTIS is a highly flexible data utility or value added network (VAN).

The architecture of JUSTIS was developed with an overall objective of allowing agencies to participate at all levels with minimum costs.

- **Additional users.** A primary benefit of JUSTIS is to allow users to connect through existing network interfaces. The JUSTIS servers are accessible through either the DC Wide Area Network (DC WAN) or the Internet without requiring any additional equipment. In other words, access to JUSTIS is probably going to cost an agency almost nothing.
- **Additional data access.** This entire implementation is based upon a straightforward web interface and relational databases. For an agency to add data to this environment is relatively straightforward and isolated to that agency's data. This is an important departure from earlier data architectures where extensive reprogramming might be required. This new data becomes immediately available to all authorized users. The utility nature of the JUSTIS network eliminates much of the incremental cost of sharing that data with other agencies.
- **Data transfer utility.** In addition to providing a simple interface to data for inquiry purposes, JUSTIS facilitates data transfer from a data-originating agency to a data-using agency. This capability is the result of the basic architecture of JUSTIS as a data sharing utility. This capability avoids the cost of additional re-entry, error correction or an application specific file

transfer process. It also means that all agencies that use that source data are now dealing with identical data.

An agency executive can view JUSTIS as a utility looking to the JUSTIS infrastructure as the primary feature. The value of JUSTIS becomes its interoperability. JUSTIS is then the vehicle of choice for any process where more than one JUSTIS agency needs to collaborate on data. From this perspective, JUSTIS can be thought as not just another flavor of existing transaction based systems but as an infrastructure of networking, security and database capabilities that allow user agencies to devote more of their energies to mission specific activities. The operational costs are modest as JUSTIS takes advantage of existing infrastructures such as the DC WAN and the Internet to shield users from complexity and costs. The cost avoidance JUSTIS offers is consistent with a strategy of using technology to increase productivity without offsetting these gains with support costs.

One of the core functions of the JUSTIS system is the Inquiry. This is a variable query allowing a user to find all results, as a numeric total, of a search argument against all available sets of agency data. For example, a user may elect to make an inquiry of “all instances of last names beginning with ‘Stev’ in each of the available sets of agency data.” The response to this inquiry would indicate 546 instances in MPD, 45 instances in CSOSA, 1210 instances in PSA, etc. Not all data sources would respond. This is because there is no single indexable data

element that can be applied across all sets of data. As a consequence, Boolean inquiries are possible, but the search arguments restricted to two search terms.

The average response time for the inquiry described above is 28 ± 2 seconds. While recognizing that the value of the data never before being available to any user, much less from a single inquiry or source, the ITAC also recognized that even 10 seconds, much less 28, far exceeds any user's concept of a reasonable level of service. The response time completely diminishes the value of the data received. The ITAC assigned the Information Technology Liaison Officer (ITLO) to examine the problem and recommend alternative solutions.

The ITLO completed an examination of the problem several months ago and a contractor prepared a thorough report. That report documented the various variables contributing to the lengthy response time. The ITLO asked for a review of the report by the Office of the Chief Technology Officer (OCTO) of the District of Columbia to confirm both the thoroughness of the report and the validity of the conclusions. OCTO confirmed both.

Consultation with OCTO and other technical personnel, and examination of documentation and web sources, allowed the search for alternative technical solutions to be achieved. One of the most attractive solutions was to apply proven Internet search engine technology to data.

The ITAC also required the ITLO to develop a minimum performance agreement document. This document would specify the performance level JUSTIS management will staff and fund and will be the basis for user performance expectations from JUSTIS. After the minimum performance agreement has been approved by the ITAC, all future deployments, whether involving additional functionality, system expansion, or user expansion will be first be weighed against its projected impact upon the performance agreement. If any impact is projected, it will be quantified and any necessary mitigating actions will be identified. This administrative tool, along with suitable system performance technology advancement will prove robust measures to prevent reoccurrence of performance difficulties.

The JUSTIS systems developed quickly and often in advance of the establishment of formal OCTO standards. Such was the case with certain naming conventions for different infrastructure components of JUSTIS. The introduction of new technology to address the JUSTIS system performance challenge will require analysis of JUSTIS infrastructure, the performance of contributing agencies and the attributes of LANs and WANs associated with JUSTIS. The ITAC will then require a minimum performance standard to be written. The ITLO will need the intimate involvement of OCTO technical personnel to implement the new technology to determine any ancillary impact. As a consequence, part of this project effort will be to take necessary steps to

review OCTO conventions and standards, plan a course of action to meet those conventions and standards, and then complete transition to them.

Although system performance has been identified as the most serious JUSTIS problems, another aspect of the more global nature of the JUSTIS problems is that a number of other user requirements remain unanswered. The two with the highest priority are Notification and Warrant Status. These two priority user requirements will have great effect not only upon the justice offender process as a whole, but also direct fiscal impact.

An ITAC Joint Application Development (JAD) program defined the JUSTIS Notification System (NOT) requirements and functionality. The NOT Detailed Specification has been reviewed and accepted by the ITAC. The NOT is required to provide functionality by which a user may identify an offender, one or more events, the number of occurrences, a specific length of time, and a notification delivery method. JUSTIS would accept the request and monitor reports from each participating agency. Should such an event involving the specific offender be reported, JUSTIS would send a notice to the requesting user.

The difficulty is that JUSTIS does not collect data nor serve as a repository. Because notification systems are dependant, or triggered, by transactions, JUSTIS is “out of the loop.” Those transactions are internal to the contributing

agency systems and not necessarily reported to JUSTIS. If reported, JUSTIS must somehow compare and contrast data that is never reported to and stored by the system. Because a basic ground rule given JUSTIS system development is to not interfere with current legacy systems, and because the JUSTIS System is not a data warehouse, JUSTIS must determine a unique methodology to solve this problem.

A CJCC ad hoc user group involving agency executive officers has determined that establishing the Warrant Status File (WSF) and its functionality will address a fundamental justice community problem. The WSF is required to be a transient set of data initiated by the creation of a warrant by a DC justice agency participating in JUSTIS. The warrant will remain on the file until the warrant is no longer valid. It is expected several agencies will contribute the warrant data, the bulk of which will be contributed and removed by the Superior Court of the District of Columbia.

Again, the problem with designing a WSF is best stated by reiterating the difficulty with a NOT system: the difficulty is that JUSTIS does not collect data nor serve as a repository. Because, in this case, status files are dependant, or triggered, by transactions, JUSTIS is “out of the loop.” Those transactions are internal to the contributing agency systems and not necessarily reported to JUSTIS.

While there are many ITAC member agencies contributing to JUSTIS by allowing access to portions of the data from their legacy systems by the other agencies comprising the D.C. justice community, the problems of implementing a NOT or WSF within this framework are clear. In addition, a fundamental tenet of JUSTIS System is to not interfere with, compete with, or replace current legacy systems, and because the JUSTIS system is not a data warehouse, JUSTIS cannot propose to develop or replace any city-wide system, nor establish data collection interfaces with justice community systems or programs.

B. The Goals

The goal of the proposed solution to the JUSTIS system problems will be to demonstrate the application of a suite of enterprise-class technologies built around a core-indexing, search and retrieval engine. The proposed solution utilizes advanced indexing to eliminate data management processes and provide real time retrieval for justice agency data contributions. This allows JUSTIS to serve as a **virtual data warehouse**, allowing the system, and the user, to manage structured and unstructured content and eliminate the need for separate data replication, synchronization and transformation. JUSTIS will demonstrate that personalized filtering technology will enable real time access to data categories and real time notices, as specified by the user.

The objectives of this project are to demonstrate the application of an advanced search and retrieval engine will:

- Improve system performance for the most basic JUSTIS user function, the Inquiry, by reducing 20 plus second turn-around to sub second response times
- Support an administrative procedure to reduce the opportunity for response time to be ever again negatively impacted
- Involve city technical experts to implement OCTO infrastructure conventions and connection standards
- Utilize system performance solution technology to design and rapidly implement two highest priority user requirements: Notification and Warrant Status

C. The Approach

Establishing the most acceptable approach to the solution of the system performance problem was initiated a number of months ago. The ITLO noticed the deterioration of response times to the JUSTIS Inquiry. Based upon an assumption that a recent move to a new location might be the probable cause, a series of response time measurements were made from not only the ITLO's new office, but also a number of diverse locations where JUSTIS users worked. The result indicated that location related issues did have an effect upon response

time, but overall response times for no location did meet reasonable user expectations.

The ITLO reported the difficulty and the ITAC requested further examination. As discussed in the Problem Statement, a contractor prepared a thorough report. That report documented the various variables contributing to the lengthy response time. The ITLO asked for a review of the report by the Office of the Chief Technology Officer (OCTO) of the District of Columbia to confirm both the thoroughness of the report and the validity of the conclusions. OCTO confirmed both.

Several alternative solutions were suggested. Because of the rapid expansion of the sources of available data, the multitude of indexes, none of which were available across all agency's data, and the fact that JUSTIS is not a data repository, significant reconstruction of the Inquiry code and/or methodology was the most often suggested alternative. Other alternatives beyond rewriting code, such as actually creating a repository, or newly applied Internet search technology were also suggested to be examined for applicability. It was suggested that any examination should concentrate on alternatives with solutions that reasonably guarantee the prevention of reoccurrence of the lengthy response time, and that would have applicability to future functionality development. These should receive greater consideration. The ITAC also

required that any system performance proposal must be consistent with the current JUSTIS Blueprint.

After due diligence searches of current documentation, discussion with other technical experts and based upon OCTO suggestions, the ITLO examined the possible use of Internet search engines for data applications. The parallels between JUSTIS and the Internet were significant. Neither were data repositories; neither collected significant amounts of user accessible data, the significant transaction for both was a user initialed search for the incidence of data at remote sites that could answer later follow-up requests for more specific data by the user. The primary difference was that a JUSTIS user could expect to wait nearly half a minute for data “from across the street”, while an Internet user seldom waited more than a second for data from anywhere in the world.

The ITLO invited an experienced vendor to discuss the technology, upon the advice of OCTO. Based upon that discussion, the ITLO again invited the vendor to present the technology to a group consisting of JUSTIS team members, the JUSTIS prime contractor, OCTO and significant users. After discussion among that group, a presentation was made to the entire ITAC membership. The results of all three meetings were virtually the same; this technology:

1. Will significantly reduce response time by dramatically improving the systems' performance of inquiries

2. Would not be limited by the multitude of dissimilar indexable items of agency unique indexes
3. Will allow the two-term limited Boolean inquiry offered by JUSTIS to become unique inquiries structured by individual users
4. Will not only better manage the data contribution methodology current to JUSTIS, but also would be immediately applicable to all agencies later allowing JUSTIS to serve as their systems' portal
5. Will offer an individualized Notification System as a by-product, eliminating any significant development and implementation resources
6. Will allow a Warrant Status File as a by-product, dependant only upon individual agency access permissions
7. Will provide indexes for the Inquiry, notifications for NOT and WSF that are real time.

The ITLO prompted discussions between the JUSTIS prime contractor and the search engine vendor. This discussion provided a working relationship between the very experienced organization that designed and implemented JUSTIS and the vendor for the search engine technology.

The ITLO has written Statements of Work (SOW's) for the application of the search engine technology and each of the objectives in the Goals Statement. The city, representing the CJCC and ITAC will send a Work Order to the prime contractor. The contractor will present a detailed work plan with a six (6) month

delivery time limit. The overall Project Manager, representing the CJCC and ITAC will be the ITLO. A Project Manager representing OCTO will join the ITLO. A Senior Project Manager and a Managing Partner will represent the prime contractor. A Project Manager will represent the technology company.

The ITLO will have monthly status meetings with written status reports. The ITLO, and the team, will report to the ITAC monthly. The ITLO and the Chairs of the ITAC will report to the CJCC monthly.

The ITAC will establish Working Groups in support of each set of tasks. These Working Groups will be comprised of individual users from JUSTIS contributing agencies as well as individuals from allied agencies and projects. These Working Groups will assure user input into each task design and implementation.

Each major objective will be presented to the ITAC prior to task initiation. After each major objective is completed, the deliverable will be presented to the ITAC for review and acceptance. Upon acceptance, the vendor will create and/or update all system documentation and will receive partial payment for the project.

D. The Nature of the Technology to be Demonstrated

The technology that JUSTIS will demonstrate is the application of a search engine and spider product whose origins is the Internet. As stated earlier, the parallels between the conceptual views of JUSTIS and the Internet, how is each used by individuals, and how each responds to queries, is remarkable. The ITAC will build upon these attributes to further demonstrate how this engine can deliver and support both a Notification System and a Warrant Status file. On the most basic level, the technology is a search engine and spider. The search engine will utilize the current agency contributed indexes to respond to the Inquiry and the spider will assure real time changes are recognized by the system and provide real time notices based upon those changes.

Because the search engine “knows” all indexes, the user can customize her query to any indexable item in combination with any other indexable item, and with any combination of agency data contributions. The two term Boolean query, “give me all records with a last name that begins with ‘Gill’ and a first name of ‘Earl’”, can now be, “give me all records with a last name that begins with ‘Gill’ and a first name of ‘Earl’, who has been arrested in the last 24 hours and has a Division of Correction record.” This flexibility will provide users with unparalleled query power.

The application of the query, combined with the timing attributes will allow a query such as “Tell me if an Earl Gillespie is arrested”. This is the foundation of a Notification System. “Tell me if the Division of Correction completes a warrant screen on the DOC system.” This is the basis of a Warrant Status File. The ability to service the NOT and WSF requirements are native to the technology; the staff need only build a user query interface and response method that fits the DC justice community nomenclature and practices.

The secondary attributes, or added value of this technology is the opportunity to establish even broader applications based upon the initial success of these applications and the foundation of trust of the technology established by the contributing agencies and individual users.

After the initial application, the possibility of contributing agencies making the jump from contributed data to agency system portals is possible. To make that jump from the JUSTIS S side is virtually without effort. Rather than index the indexes, JUSTIS will index the data, and inquiries can be against any data within an entire agency system, as permitted by security authorization. If an agency does not wish to open their system to JUSTIS via a portal approach, the agency can identify specific accessible data and the search engine can spider the data. With any of the levels of application – the basic start-up, the portal or the partial access, the data will always be real time and with each step the contributing agency has less responsibility to develop and support reporting methodologies.

The technology vendor's website <http://www.momentum-solutions.com>, describes their technology. Found below is an abridged and edited version of website information which describes more completely the technology JUSTIS will demonstrate.

Momentum's technology enables IT to empower the organization by providing easy, fast, direct access to all enterprise content without IT engagement in the process. The solutions serve as both a virtual data warehouse and a retrieval system and require only minimal involvement from IT, which manages the content, and employees, who generate it.

This highly scalable platform has three logical layers: data aggregation and preprocessing, search and real time filtering and delivery and presentation. Data aggregation and preprocessing uses open, flexible interfaces to acquire static and dynamic data as well as frequently changing data (both dynamic and static) from a wide variety of sources. As data is acquired it is assessed, indexed and then stored in proprietary databases. Unique, high-speed algorithms aggregate and index relevant, timely and comprehensive data. Real time data is searched or filtered depending on its type and then matched against user criteria. Proprietary, high performance search and real time filtering software modules handle expanding data volumes and increasing user numbers cost-effectively and without performance deterioration. Matched results are presented using

standard data exchange formats, like XML. Users can view their results in the format they prefer on the device of their choice.

The system will take note of highly changeable data and less frequently changed items, and will adjust the frequency with which that information is re-assessed in accord with frequency of change. Once assessed, data is converted to a common format and indexed. The result can be stored on a customer's server, or a JUSTIS server, whatever better suits the customer's purpose. Wherever the index resides, response time is virtually the same.

Once initial acquisition is complete, the solution will continue to cycle through all selected data sources to acquire new documents and updates to existing ones, completing data index updates based on the organization's update frequency needs and how often individual documents change. Since the indexing node works in parallel with the search and dispatch nodes, the system can build an index for 300 million documents in only twelve hours, with indexing updates completed in minutes. The result is fresher and more consistent information to users on a timelier basis.

The search engine's architecture's basic logical components are:

- Dispatch node: routes search node query results and compiles search results—a low-end solution can utilize the same computer to host the search and the dispatch processes;

- Search node: manages index changes and creation, against which search queries are performed;
- Indexing node: offloads optional data indexing (crawling) and preprocessing from search nodes; for a low-volume solution these processes can run on the search node

The logical architecture makes it possible for a small-scale physical solution to be created using only a few servers (even one, for smaller volume systems). Larger solutions can employ any combination of search nodes with a number of dispatch and indexing nodes and thus will utilize multiple servers.

Besides efficient and scalable hardware utilization, the search architecture also delivers exceptional search speed. A typical query will race through 300 million documents in less than one second.

The Momentum RealTime module performs dynamic data filtering of information alert applications. It employs the same powerful, scalable architecture as Momentum Enterprise' data collection and search technologies. The real time filter accepts high volume data feeds (including high rate of change databases); matches the data against stored queries called "triggers" and issues two output types:

- Discrete alerts that can be delivered through any messaging gateway, including fax, email, wireless applications and switched multi-megabit data service, and
- Filtered streams which parse the incoming data according to stored rules designed by the user or administrator

The textual alert engine monitors text-based triggers, which express textual conditions, such as heading, body and keywords; real time filtering will also monitor numeric and text combinations and support one-shot and repeating triggers.

Like the data collection and search engines, the Momentum RealTime module was built for high performance and scalability. It can meet by running on a single server, but it also easily scales for multiple servers and handling high volumes of data and triggers.

This module is easy to configure and administer, no matter how many nodes and servers may be required. Configuration is simplified using centralized configuration files based on XML. Filter administration is done through a Web interface to the filter manager node. Through this interface, the administrator can view each node's status, every log message from every node and manually suspend, restart or terminate all filter nodes.

Included with the module is an advanced program interface based on the TIB/Adapter SDK. The API describes events, triggers and results as TIB/Adapter SDK M-Trees. For solutions not using TIBCO's application integration suite, the Real-Time Filter has a pure C++ API.

E. Task Plan

1. Administrative Tasks

Provide Documentation, System Support and Project Administration for
JUSTIS Project

Complete detailed project plan

Present project plan to ITAC

Obtain ITAC approval to proceed

Participate in weekly project working Groups

Coordinate JUSTIS security procedures with JUSTIS Security
Officer

Implement security policies and procedures for JUSTIS project

Support the continued implementation of the Tracking Number

Maintain system-monitoring facilities

Update disaster recovery plan, as necessary

Update hardware expansion plan, as necessary

Update software upgrade plan

Update operations procedures (backup/restore, preventive maintenance)

Update JUSTIS Operations Manual

Update JUSTIS Technical Support Manual, as necessary

Update Help Desk materials – frequently asked questions, user manual

Update Applications Development and Maintenance Manual, as
necessary

Participate in weekly JUSTIS status team meetings

Prepare monthly project status / progress reports to ITAC

Obtain review, prior approval and acceptance of new projects by
ITAC

Prepare final update to JUSTIS Information System Blueprint

Make presentation for turnover of new functionality to working
Groups

Make presentation for turnover of new functionality to ITAC

Host project post-implementation presentation, requesting review and
acceptance by ITAC

Project certified as complete by ITAC

2. Improve JUSTIS System Response Time

Review the required documentation, the Phase 3 JUSTIS Blueprint, the
JUSTIS Performance Report dated 5/14/02, and the
standards documentation for naming conventions available

from OCTO.

Determine the “best method” alternatives available to produce inquiry
response time no greater than 2 seconds.

Propose a recommended solution

Work with JUSTIS Management Team to finalize solution

Design screen formats for static and data displays

Procure, install, test software /hardware

Prepare JUSTIS infrastructure

Test implemented solution

Demonstrate solution

Prepare and participate in user field test of solution

Fully deploy new solution

Present and demonstrate new solution for review and acceptance by ITAC

3. JUSTIS Minimum Performance Agreement (MPA)

Research, gather and review existing MPA's

Review alternatives with JUSTIS Management Team

Draft recommended MPA

Present to ITLO for review and approval

Present to ITAC for review and acceptance

4. Compliance with OCTO Naming Conventions and Standards

Review OCTO standards and requirements for naming conventions

Review JUSTIS infrastructure for comparison with standards

Draft list of changes required

Review with appropriate OCTO personnel

Review results with JUSTIS Management Team

Prepare plan for changes to accommodate standards

Implement plan

Document results

Review Results in joint OCTO / JUSTIS Management Team
meeting

Make any required modifications

Complete new documentation of infrastructure

5. Increase JUSTIS System Functionality – Notification

Participate in an ITAC Notification Working Group addressing Notification

Implement underlying messaging structure for notification

Implement publish/subscribe event notification at agency user level for
a minimum of:

Arrest of offender

Warrant issuance

Change in: Court date, attorney, and prosecutor

Trial verdict

Escape

Release from DCSC

Enhanced notification – add email, pager, voice alerts

Post-implementation presentation, review and acceptance by ITAC

Update JUSTIS User Manual

6. Increase JUSTIS System Functionality – Warrant Status File

Participate in ITAC the Working Group addressing Notification

Implement underlying messaging structure for notification

Implement publish/subscribe event notification at individual user level

for:

Arrest of offender

Warrant issuance

Change in: Court date, attorney, and prosecutor

Trial verdict

Escape

Release from DCDC

Enhance notification – add email, pager, voice alerts

Post-implementation presentation, review and acceptance by ITAC

Update JUSTIS User Manual

F. Key Milestones

Review existing JUSTIS Blueprint, complete detailed work plan, develop initial high-level architecture blueprint, conduct kick-off presentation and receive ITAC permission to proceed.

Weekly staff meetings and status / progress reports in a format provided by the ITLO

Review specifications for any required hardware and software, install, test, and integrate all Hub and JUSTIS agency hardware and software, conduct unit and integrated tests of the new software

Delivery of Inquiry response time of no greater than two (2) seconds as Measured from the user action of “enter” or “search” and the delivery of data on the workstation screen of data in response to that action

Conduct a post implementation review, conduct user evaluation, and determine effect, if any, on subsequent project steps and tasks

Delivery of a JUSTIS Minimum Performance Agreement (MPA), the basis upon which the MPA was established and a basis for evaluating any change or modification to JUSTIS against the MPA

Conduct a post implementation review, conduct user evaluation, and determine effect, if any, on subsequent project steps and tasks

Delivery of a plan to achieve compliance with OCTO naming conventions

Implementation of the naming convention plan

Participate in an ITAC Notification Working Group addressing Notification

Implement underlying messaging structure

Deliver Notification System, enhanced with email, pager, voice alerts

Post-implementation presentation, review and acceptance by ITAC

Participate in an ITAC Notification Working Group the Warrant Status File

Implement underlying messaging structure

Deliver Warrant Status File, enhanced with email, pager, voice alerts

Post-implementation presentation, review and acceptance by ITAC

Update to JUSTIS manuals and documentation, as necessary

Update to the User's Manual for JUSTIS technical support, as necessary

Final update to JUSTIS Blueprint

ITAC approval of final update to JUSTIS Blueprint

Project completion certified by ITAC